

Manchester Nuffield MKiT Discussion Group 3

In the following I shall provide a list of issues raised by the group. These are grouped under six headings.

1. Should we be involved with 'audit'? What means 'audit'? How do we perceive 'audit'? - global/local audit?
2. Should everybody who teaches mathematics do/be able to do mathematics? What does it mean to 'do maths', to behave mathematically, to know maths? Particular mathematics? How does that relate to primary school teachers?
3. Are there, and should we identify, 'essential' ideas in mathematics? It was agreed that mathematics education was more than that, more about the pedagogy of mathematics. But the question remains: is there a 'capital' that we can draw on? There seems to be something personal about this knowledge. What kinds of resources do we have (beside textbooks, web, etc)?- internal, questioning, etc? Should we audit 'states of being' in mathematics education? We need particular 'spectacles', 'lenses', because it is a special environment (not just generic thinking skills).
4. "You know it is a good lesson, when you see a good lesson." We cannot audit the substance of a 'good lesson', but we can audit the process. -> "readiness to shift" (discrete to continuous); exactness & precision; different solutions; etc.
5. Is it possible, and if so how, to articulate that knowledge? - facilitate/provide opportunities for that moment/'state of being' to happen (can we expect it to happen/produce it?); explicit and tacit knowledge: teachers need that professional language so that they can talk amongst each other, and with others, that they have that analytical discourse 'available'.
6. Mathematics for teacher educators: humility because there are lots of things that we don't know.

Birgit Pepin, October 2007